

ABSTRACT OF THE DISCLOSURE

A delivery system for a self-expanding stent includes a catheter having a distal end and being configured to retain a self-expanding stent proximate the distal end. The delivery system also includes an inflatable device provided on the catheter and positioned proximate the distal end. The inflatable device, typically a balloon, is configured to selectively assist the self-expanding stent with radially expansion. The catheter includes a tubular member and an outer member coaxially positioned about the tubular member. The outer member can slide relative to the tubular member in an axial direction. The outer member is configured to retain a self-expanding stent in a radially-compressed position and to release the self-expanding stent to a radially-expanded position. The delivery system may also include a holding sleeve provided on the tubular member, spaced from the distal end of the catheter, and configured to hold the self-expanding stent. The delivery system preferably includes a loading funnel configured to be removably attachable to the distal end of the tubular member and configured to assist with radial compression of the self-expanding stent and advancement of the self-expanding stent within the outer member.